

WHAT IS CLAIMED IS:

- ✓ 1. A protective circuit for a hard disk drive, which is conductively jointed with an interface situated between a hard disk drive and a computer, the protective circuit comprising:
- 5 ^{capacitor}
a rechargeable charge reservoir;
- a charge controller conductively connected to a power terminal HD_PWR of the hard disk drive for charging the charge reservoir; and
- a selectable switch conductively connected with the charge reservoir for automatically switching power supply to the hard disk drive; wherein
- 10 the charge reservoir is switched automatically to provide power to the hard disk drive for parking the magnetic head thereof safely in case the hard disk drive is extracted improperly.
2. The protective circuit according to claim 1, wherein the rechargeable charge reservoir is a capacitor with large capacitance and the charge controller comprises
- 15 a diode and a current limitation resistor jointed in series.
3. The protective circuit according to claim 1, wherein the rechargeable charge reservoir is a secondary Lithium battery and the charge controller is a charging circuit for the secondary Lithium battery.
4. The protective circuit according to claim 1, wherein the rechargeable charge
- 20 reservoir is a secondary Ni-Cd battery and the charge controller is a charging circuit for the Ni-Cd battery.
5. The protective circuit according to claim 1, wherein the selectable switch comprises two Schottky diodes D1, D2.
- ✓ 6. The protective circuit according to claim 1, wherein the protective circuit is
- 25 combined with the hard disk drive to form an extractable unitary hard disk module relative to the interface.
- ✓ 7. The protective circuit according to claim 6, wherein the extractable hard disk

module is a hard disk mobile rack in a desktop computer.

8. The protective circuit according to claim 6, wherein the hard disk module is
30 applicable in a notebook computer.

[illegible]